AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): An image sensing system constituted by connecting an image sensing apparatus and image processing apparatus,

said image sensing apparatus comprising:

an image sensing unit adapted to sense an original and output image data of the original;

a shading correction unit adapted to apply shading correction to the image data output from said image sensing unit;

a storage medium ~~for holding~~ adapted to hold data on image sensing characteristic; and

an output unit ~~for outputting~~ adapted to output the data on image sensing characteristic held in said storage medium to said image processing apparatus, and

said image processing apparatus comprising:

an input unit ~~for receiving~~ adapted to receive the data on image sensing characteristic output from said image sensing apparatus;

a generation unit ~~for generating~~ adapted to generate image sensing characteristic correction data on the basis of the data on image sensing characteristic received by said input unit; and

an image sensing characteristic correction unit ~~for correcting~~ adapted to correct an image sensing characteristic of the image data received from said image sensing apparatus using the image sensing characteristic correction data generated by said generation unit.

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Claim 2 (Original): The system according to claim 1, wherein the image sensing characteristic is a linearity characteristic.

Claim 3 (Original): The system according to claim 1, wherein the image sensing characteristic includes a characteristic for each of a plurality of colors to be sensed.

Claim 4 (Currently Amended): The system according to claim 1, wherein said image sensing ~~apparatus further comprises~~ unit includes an image sensor which has a plurality of photoelectric conversion element arrays for respectively photoelectrically converting light of a plurality of colors, and

the image sensing characteristic indicates spatial positional deviations of the plurality of colors of pixel signals obtained by said image sensor.

Claim 5 (Currently Amended): The system according to claim 1, wherein the data on image sensing characteristic is output from said image sensing apparatus to said image processing apparatus upon starting up said image sensing apparatus ~~at least~~.

Claim 6 (Original): The system according to claim 1, wherein said generation unit generates the image sensing characteristic correction data by inversely converting the data on image sensing characteristic.

Claim 7 (Currently Amended): The system according to claim 4, wherein said image sensing apparatus further comprises updating ~~means for~~ unit adapted to, when an exchangeable unit including said image sensor is exchanged, ~~updating~~ update the data on image sensing characteristic held in said storage medium in accordance with a characteristic of the unit.

Claim 8 (Original): The system according to claim 1, wherein when the data on image sensing characteristic held in said storage medium is updated, said output unit outputs the updated data on image-sensing characteristic to said image processing apparatus.

Claim 9 (Original): The system according to claim 4, wherein said image sensing apparatus further comprises an optical element which brings about a change in spatial positional deviation amount of the plurality of colors of pixel signals obtained by the plurality of photoelectric conversion element arrays of said image sensor, and

the data on image sensing characteristic includes basic data which indicates a basic amount of the positional deviation amount, and auxiliary data which indicates a change characteristic of the positional deviation amount.

Claim 10 (Original): The system according to claim 9, wherein said optical element is controlled or adjusted in accordance with a magnification of an image sensed by said image sensor.

Claim 11 (Original): The system according to claim 4, wherein the data on image sensing characteristic includes data which indicates a relationship between actual positions at which light forms images on the plurality of photoelectric conversion element arrays, and design positions thereof.

Claim 12 (Currently Amended): The system according to claim 4, wherein said image sensing apparatus further comprises an optical system for forming a document an original image on an imaging surface of said image sensor, and

said image sensor senses the document original image.

Claim 13 (Original): The system according to claim 4, wherein said image sensor has the plurality of photoelectric conversion element arrays which are separated at a predetermined line spacing.

Claim 14 (Original): The system according to claim 4, wherein the plurality of colors are three colors including red (R), green (G), and blue (B), and the data on image sensing characteristic includes data indicating spatial deviation amounts among R, G, and B pixel signals.

Claim 15 (Currently Amended): An image sensing apparatus which can be used upon being connected to an external image processing apparatus, comprising:

an image sensing unit adapted to sense an original and output image data of the original;

a shading correction unit adapted to apply shading correction to the image data output from said image sensing unit;

a storage medium for holding adapted to hold data on image sensing characteristic; and

an output unit for outputting adapted to hold the data on image sensing characteristic held in said storage medium to the external image processing apparatus so that the external image processing apparatus generates image sensing characteristic correction data on the basis of the data on image sensing characteristic and corrects the image sensing characteristic of image data received from said image sensing apparatus using the image sensing characteristic correction data.

Claim 16 (Original): The apparatus according to claim 15, wherein the image sensing characteristic is a linearity characteristic.

Claim 17 (Original): The apparatus according to claim 15, wherein the image sensing characteristic includes a characteristic for each of a plurality of colors to be sensed.

Claim 18 (Currently Amended): The apparatus according to claim 15, further comprising wherein said image sensing unit includes an image sensor which has a plurality of photoelectric conversion element arrays for respectively photoelectrically converting light of a plurality of colors, and

wherein the image sensing characteristic indicates spatial positional deviations of the plurality of colors of pixel signals obtained by said image sensor.

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Claim 19 (Original): The apparatus according to claim 15, wherein the data on image sensing characteristic is output from said image sensing apparatus to the external image processing apparatus in an initial communication therebetween.

Claim 20 (Currently Amended): The apparatus according to claim 18, further comprising updating ~~means for~~ unit adapted to, when an exchangeable unit including said image sensor is exchanged, ~~updating~~ update the data on image sensing characteristic held in said storage medium in accordance with a characteristic of the unit.

Claim 21 (Original): The apparatus according to claim 15, wherein when the data on image sensing characteristic held in said storage medium is updated, said output unit outputs the updated data on image sensing characteristic to the external image processing apparatus.

Claim 22 (Original): The apparatus according to claim 18, further comprising an optical element which brings about a change in spatial positional deviation amount of the plurality of colors of pixel signals obtained by the plurality of photoelectric conversion element arrays of said image sensor,

wherein the data on image sensing characteristic includes basic data which indicates a basic amount of the positional deviation amount, and auxiliary data which indicates a change characteristic of the positional deviation amount.

Claim 23 (Original): The apparatus according to claim 22, wherein said optical element is controlled or adjusted in accordance with a magnification of an image sensed by said image sensor.

Claim 24 (Original) The apparatus according to claim 18, wherein the data on image sensing characteristic includes data which indicates a relationship between

actual positions at which light forms images on the plurality of photoelectric conversion element arrays, and design positions thereof.

Claim 25 (Currently Amended): The apparatus according to claim 18, further comprising an optical system for forming a document original image on an imaging surface of said image sensor,

wherein said image sensor senses the document an original image.

Claim 26 (Original): The apparatus according to claim 18, wherein said image sensor has the plurality of photoelectric conversion element arrays which are separated at a predetermined line spacing.

Claim 27 (Original): The apparatus according to claim 18, wherein the plurality of colors are three colors including red (R), green (G), and blue (B), and the data on image sensing characteristic includes data indicating spatial deviation amounts among R, G, and B pixel signals.

Claims 28-41 (Canceled).

Claim 42 (Currently Amended): An image scanning system which comprises an image scanning apparatus, an image processing apparatus, and a connection unit that connects said image scanning apparatus and said image processing apparatus to be able to communicate with each other,

said image scanning apparatus comprising:

a light source which can illuminate a document an original and a reference member serving as a color reference;

an image scanning unit for scanning an image on the document adapted to scan the original and the reference member illuminated by said light source and output image data;

a shading correction unit adapted to apply shading correction to the image data output from said image scanning unit; and

a controller ~~for controlling~~ adapted to control, at a system startup timing, to illuminate the reference member by said light source, scan the illuminated reference member by said image scanning unit, and transfer information corresponding to ~~a value~~ image data obtained by scanning the reference member to said image processing apparatus via said connection unit, and

said image processing apparatus comprising:

a color correction unit ~~for executing~~ adapted to execute a color correction process of an image scanned by said image scanning apparatus using the information transferred from said image scanning apparatus.

Claim 43 (Currently Amended): The system according to claim 42, wherein said controller transfers as the information a color correction coefficient corresponding to the ~~value~~ image data obtained by scanning the reference member to said image processing apparatus via said connection unit.

Claim 44 (Original): The system according to claim 42, wherein the system startup timing corresponds to a power ON timing of said image scanning apparatus and said image processing apparatus.

Claim 45 (Currently Amended): The system according to claim 42, wherein said image scanning apparatus has a state transition function of changing an apparatus state to a standby state in which power supply to at least one unit of said image scanning apparatus is shut off, and restoring from the standby state to a scan ready state of the ~~document~~ original, and the system startup timing corresponds to a restoration timing from the standby state to the scan ready state of the ~~document~~ original.

Claim 46 (Original): The system according to claim 42, wherein the system startup timing corresponds to a scan operation start timing of said image scanning apparatus.

Claim 47 (Currently Amended): The system according to claim 43, wherein said image scanning apparatus holds a plurality of color correction coefficients which are measured in

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advance, and said controller selects a corresponding one of the plurality of color correction coefficients in accordance with the ~~value~~ image data obtained by scanning the reference member and transfers the selected color correction coefficient to said image processing apparatus as the information.

Claim 48 (Currently Amended): The system according to claim 43, wherein when the ~~value~~ image data obtained by scanning the reference member falls with a range that exceeds a pre-set threshold value, said image scanning apparatus fixes the color correction coefficient at a given value.

Claim 49 (Currently Amended): The system according to claim 42, wherein said image scanning apparatus further comprises a storage medium, and

said controller stores the ~~value~~ image data obtained by scanning the reference member in said storage medium every time the number of scan times of the ~~document~~ original reaches a predetermined value.

Claim 50 (Currently Amended): The system according to claim 42, wherein said image scanning apparatus further comprises a storage medium, and

said controller controls to illuminate the reference member by said light source and to scan the illuminated reference member by said image scanning unit at a predetermined time interval, and stores the ~~value~~ image data obtained by scanning the reference member at the predetermined time interval in said storage medium.

Claim 51 (Currently Amended): The system according to claim 42, wherein said image scanning apparatus further comprises:

a storage medium ~~for storing~~ adapted to store the ~~value~~ image data obtained by scanning the reference member; and

an initialization unit ~~for initializing~~ adapted to initialize the ~~value~~ image data stored in said storage medium when the light source has been exchanged.

Claim 52 (Original): The system according to claim 42, wherein when said light source has been exchanged, said image scanning apparatus transfers light source exchange information indicating exchange of said light source to said image processing apparatus via said connection unit, and

said image processing apparatus further comprises an informing unit for informing that said light source has been exchanged on the basis of the transferred light source exchange information.

Claim 53 (Currently Amended): The system according to claim 45, wherein said image scanning apparatus further comprises a storage medium, and

upon shutting off power supply to at least one unit of said image scanning apparatus, said controller controls to illuminate the reference member by said light source and to scan the illuminated reference member by said image scanning unit before the power supply shutoff, and stores the ~~value~~ image data obtained by canning the reference member in said storage medium.

Claim 54 (Currently Amended): The system according to claim 43, wherein said image scanning apparatus further comprises a storage medium, and

said controller determines the color correction coefficient in accordance with a ~~value~~ image data stored in said storage medium, and transfers the determined correction coefficient to said image processing apparatus.

Claim 55 (Currently Amended): An image scanning apparatus which can be connected to an external image processing apparatus via a connection unit, comprising:

a light source which can illuminate ~~a document~~ an original and a reference member serving as a color reference;

an image scanning unit ~~for scanning an image on the document~~ adapted to scan the original and the reference member illuminated by said light source and output image data;

a shading correction unit adapted to apply shading correction to the image data

output from said scanning unit; and

a controller ~~for controlling~~ adapted to control, at an apparatus startup timing, to illuminate the reference member by said light source, scan the illuminated reference member by said image scanning unit, and transfer information corresponding to a ~~value~~ image data obtained by scanning the reference member to the external image processing apparatus via the connection unit.

Claim 56 (Currently Amended): The apparatus according to claim 55, wherein said controller transfers as the information a color correction coefficient corresponding to the ~~value~~ image data obtained by scanning the reference member to the external image processing apparatus via the connection unit.

Claim 57 (Original): The apparatus according to claim 55, wherein the apparatus startup timing corresponds to a power ON timing of said image scanning apparatus and the external image processing apparatus.

Claim 58 (Currently Amended): The apparatus according to claim 55, wherein said image scanning apparatus has a state transition function of changing an apparatus state to a standby state in which power supply to at least one unit of said image scanning apparatus is shut off, and restoring from the standby state to a scan ready state of the ~~document~~ original, and the apparatus startup timing corresponds to a restoration timing from the standby state to the scan ready state of the ~~document~~ original.

Claim 59 (Original): The apparatus according to claim 55, wherein the apparatus startup timing corresponds to a scan operation start timing of said image scanning apparatus.

Claim 60 (Currently Amended): The apparatus according to claim 56, wherein said image scanning apparatus holds a plurality of color correction coefficients which are measured in advance, and said controller selects a corresponding one of the plurality of color correction

coefficients in accordance with the ~~value~~ <u>image data</u> obtained by scanning the reference member and transfers the selected color correction coefficient to the external image processing apparatus as the information.

Claim 61 (Currently Amended): The apparatus according to claim 56, wherein when the ~~value~~ <u>image data</u> obtained by scanning the reference member falls with a range that exceeds a pre-set threshold value, said image scanning apparatus fixes the color correction coefficient at a given value.

Claim 62 (Currently Amended): The apparatus according to claim 55 further comprising a storage medium,

wherein said controller stores the ~~value~~ <u>image data</u> obtained by scanning the reference member in said storage medium every time the number of scan times of the ~~document~~ <u>original</u> reaches a predetermined value.

Claim 63 (Currently Amended): The apparatus according to claim 55 further comprising a storage medium,

wherein said controller controls to illuminate the reference member by said light source and to scan the illuminated reference member by said image scanning unit at a predetermined time interval, and stores the ~~value~~ <u>image data</u> obtained by scanning the reference member at the predetermined time interval in said storage medium.

Claim 64 (Currently Amended): The apparatus according to claim 55 further comprising:

a storage medium ~~for storing~~ <u>adapted to store</u> the ~~value~~ <u>image data</u> obtained by scanning the reference member; and

an initialization unit ~~for initializing~~ adapted <u>to initialize</u> the ~~value~~ <u>image date</u> stored in said storage medium when the light source has been exchanged.

Claim 65 (Original): The apparatus according to claim 55, wherein when said light source has been exchanged, said image scanning apparatus transfers light source

exchange information indicating exchange of said light source to the external image processing apparatus via the connection unit.

Claim 66 (Currently Amended): The apparatus according to claim 58 further comprising a storage medium,

wherein upon shutting off power supply to at least one unit of said image scanning apparatus, said controller controls to illuminate the reference member by said light source and to scan the illuminated reference member by said image scanning unit before the power supply shutoff, and stores the ~~value~~ image data obtained by scanning the reference member in said storage medium.

Claim 67 (Currently Amended): The apparatus according to claim 56 further comprising a storage medium,

wherein said controller determines the color correction coefficient in accordance with ~~a value~~ image data stored in said storage medium, and transfers the determined correction coefficient to the external image processing apparatus.

Claims 68-85 (Canceled).